II. CLAIM AMENDMENTS

1-32 (cancelled)

33. (Currently amended) A method for decoding encoded video information, ~~the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information,~~ the method comprising:

- determining a prediction error quantizer from the encoded video information, the prediction error quantizer ~~using~~ used to quantize the prediction error transform coefficients ~~which are quantized~~; and

- determining ~~the~~ an accuracy of the motion coefficients ~~using the motion coefficients which are quantized~~ based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment~~;~~.

- ~~performing inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~

- ~~forming prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~

- ~~performing inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

34. (Currently amended) The method for decoding encoded video information according to claim 33, further comprising:

-receiving ~~signalling~~ information indicating ~~the selected~~ a motion coefficient quantizer for determining the accuracy of the motion coefficients.

35. (Currently amended) A decoder for decoding encoded video information, the decoder comprising:

- a demultiplexing unit for~~an input unit for receiving encoded video information from a video encoder, the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the input unit being configured to~~:

  - ~~determine~~ determining a prediction error quantizer from the encoded video information, the prediction error quantizer ~~using~~ used to quantize the prediction error transform coefficients~~which are quantized~~; and

- a motion field coding block for determining an ~~determine the~~ accuracy of the motion coefficients ~~using the motion coefficients which are quantized~~ based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment.~~; and~~

~~- a motion compensated predictor that is coupled to the input unit and is configured to:~~

~~- perform inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients; form prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~

~~- perform inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

36. (Currently amended) The decoder for decoding encoded video information according to claim 35, wherein the ~~input~~ demultiplexing unit is further configured to:

- determine signalling information indicating ~~the selected~~ a motion coefficient quantizer for selecting the accuracy of the motion coefficients from the encoded video information~~from the received encoded video information~~.

37. (Currently amended) A computer software program stored on a computer-readable medium, the software program causing the computer to perform a method for decoding encoded video information,

- ~~receiving the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the method comprising:~~

- determining a prediction error quantizer from the encoded video information, the prediction error quantizer ~~using~~ used to quantize the prediction error transform coefficients ~~which are quantized~~; and

- determining ~~the~~ an accuracy of the motion coefficients ~~using the motion coefficients which are quantized~~ based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment.~~;~~

- ~~performing inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~

~~- forming prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~

~~- performing inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~

38. (Currently amended) The computer software program according to claim 35, wherein the method further comprises:

- receiving ~~signalling~~ information indicating ~~the selected~~a motion coefficient quantizer for determining the accuracy of the motion coefficients.

39. (Currently amended) ~~A receiver~~An apparatus comprising a decoder for decoding encoded video information, wherein the decoder comprises:

- an inverse quantization unit for~~an input unit for receiving encoded video information from a video encoder, the encoded video information comprising quantized motion coefficients and quantized prediction error coefficients, said quantized motion coefficients representing the motion of a picture element with respect to a piece of reference video information and having a certain accuracy, said quantized prediction error coefficients representing a piece of prediction error video information, the input unit being configured to~~:

- ~~determine~~ determining a prediction error quantizer from motion coefficients of the encoded video information, the prediction error quantizer ~~using which the~~serving to quantize prediction error transform coefficients ~~are quantized~~; and

- a further quantization unit for ~~determine~~ determining an ~~the~~ accuracy of the motion coefficients ~~using the motion coefficients which are quantized~~ based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment; and

- ~~a motion compensated predictor that is coupled to the input unit and is configured to:~~

~~- perform inverse quantization of the quantized motion coefficients using the accuracy of the motion coefficients;~~

~~form prediction video information for the picture element from the piece of reference video information, using the inverse quantized motion coefficients; and~~

~~perform inverse quantization of the quantized prediction error coefficients using an inverse quantizer corresponding to said prediction error quantizer.~~